

1/23

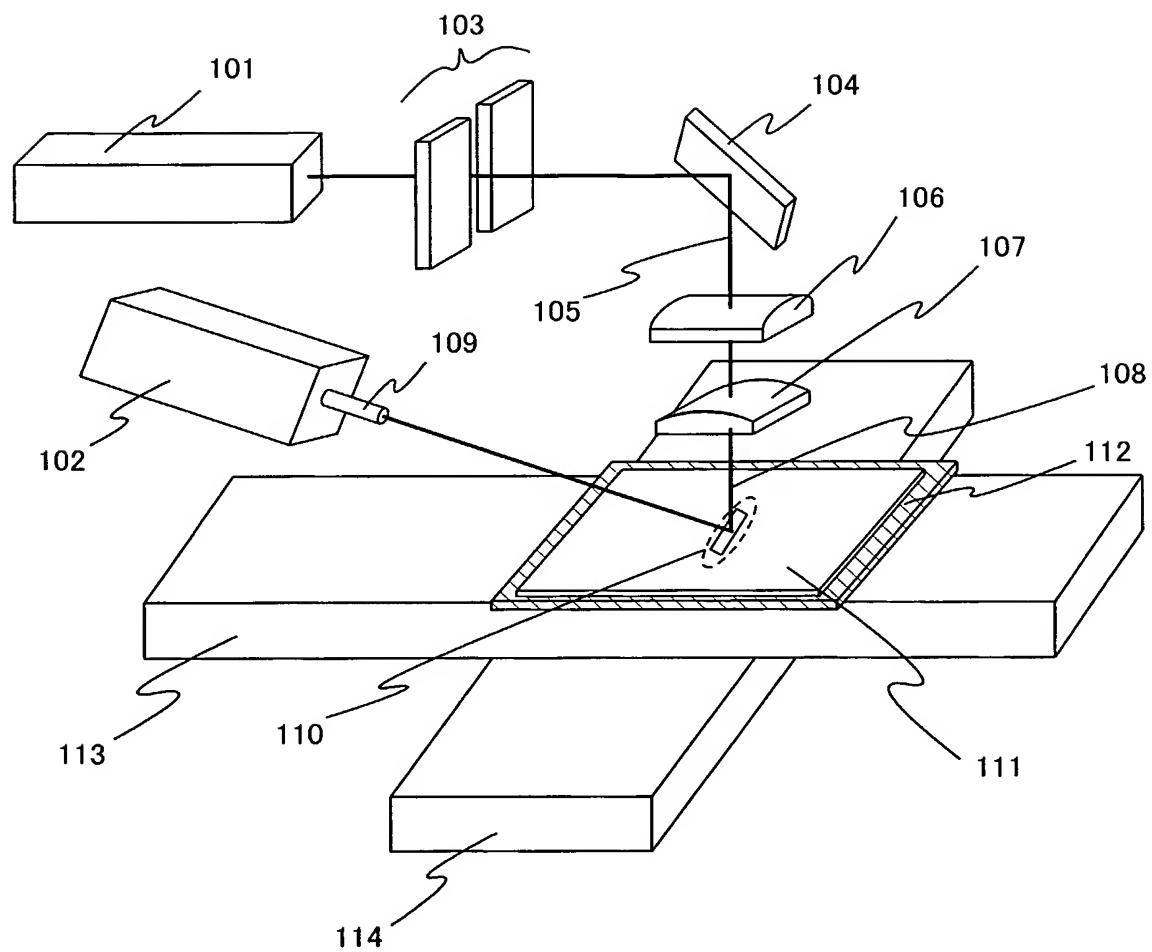


FIG. 1

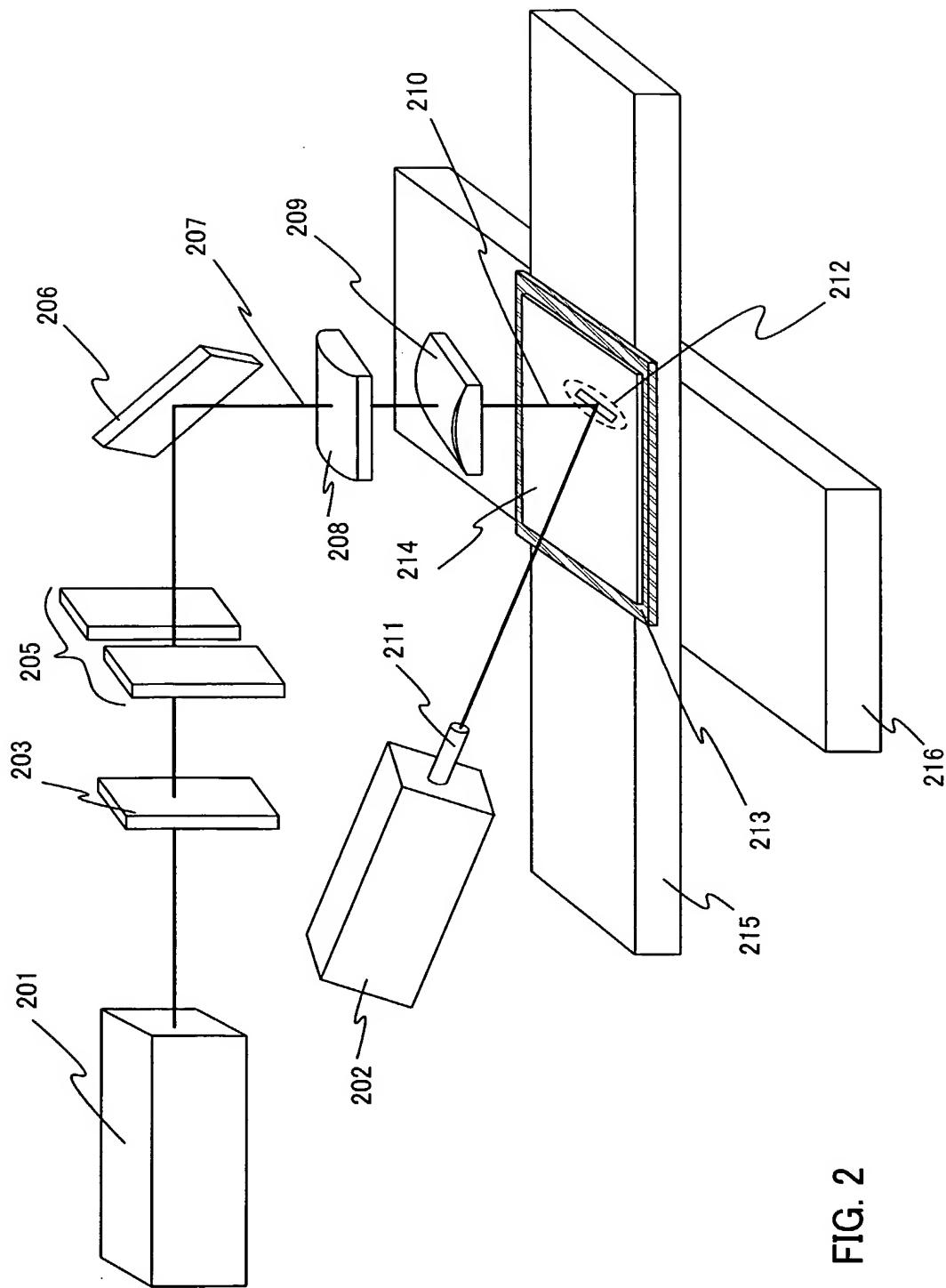


FIG. 2

FIG. 3A

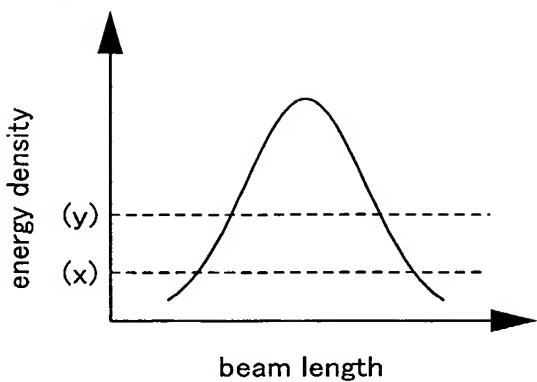


FIG. 3B

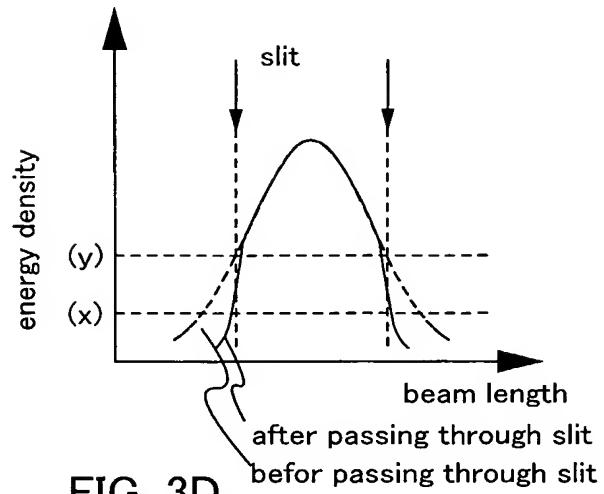


FIG. 3C

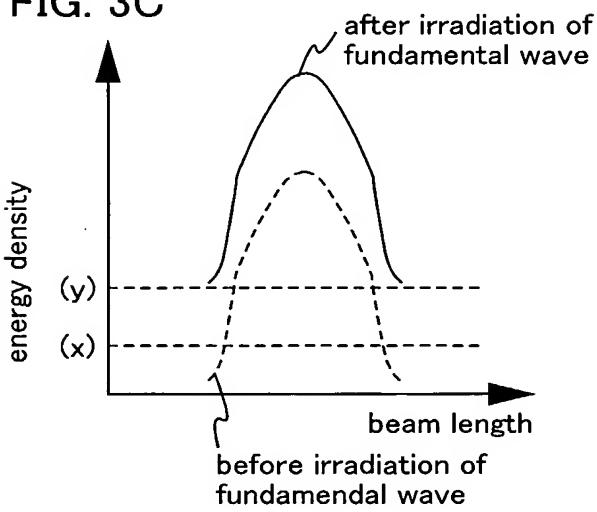


FIG. 3D

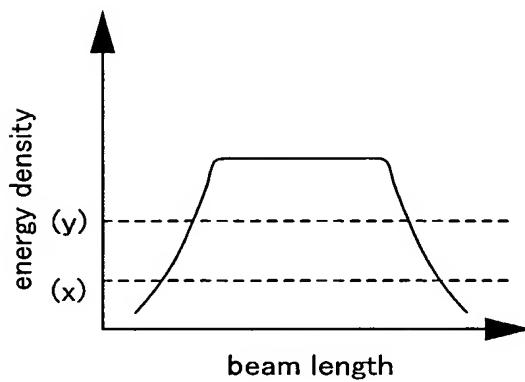


FIG. 3E

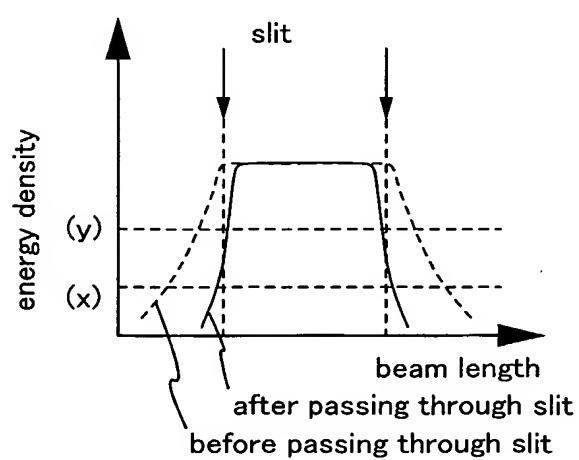
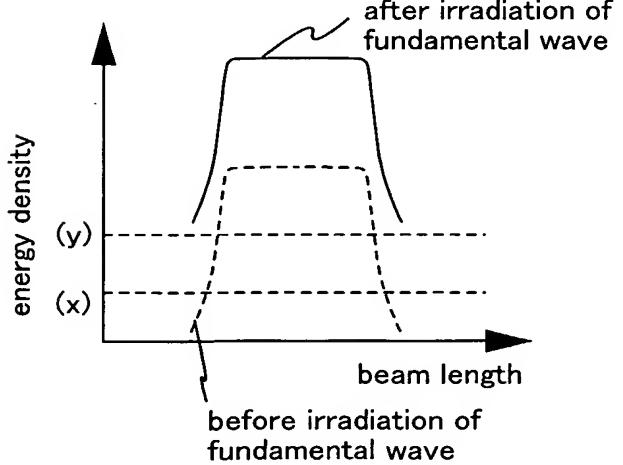


FIG. 3F



(x) threshold at which crystalline region is formed

(y) threshold at which crystalline region having large crystal grain is formed

4/23

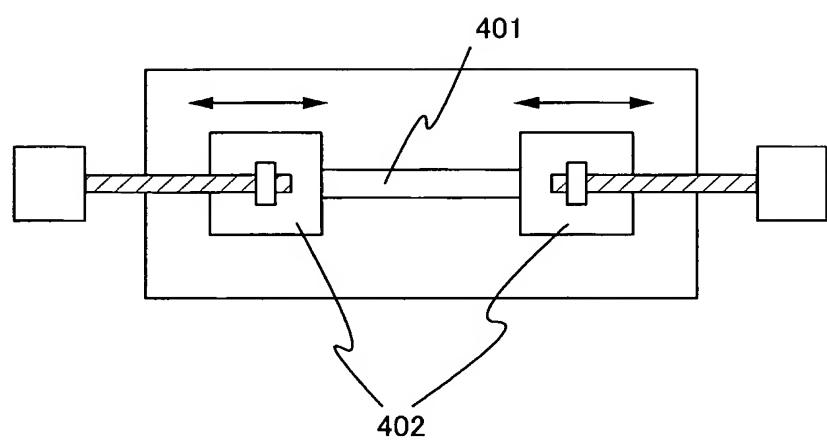


FIG. 4

5/23

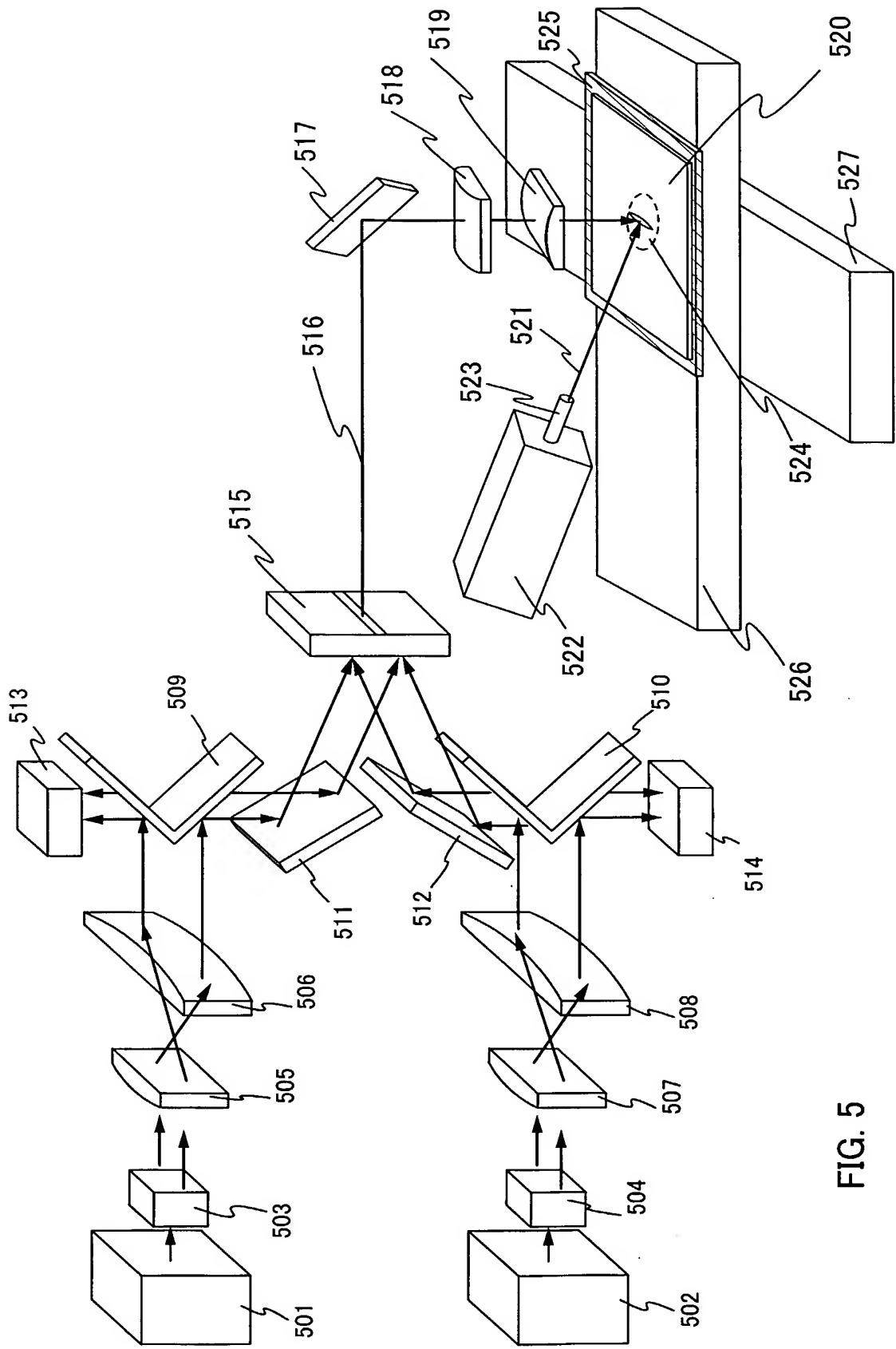


FIG. 5

FIG. 6A

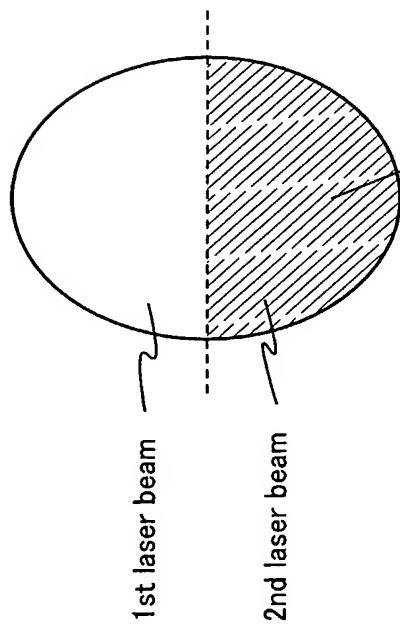


FIG. 6B

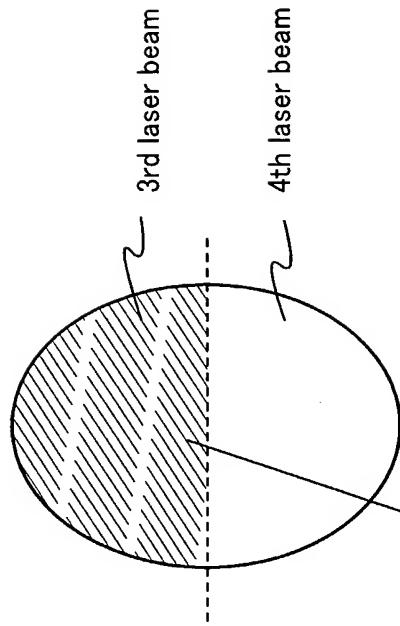
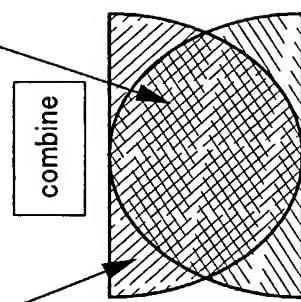


FIG. 6C



7/23

FIG. 7A

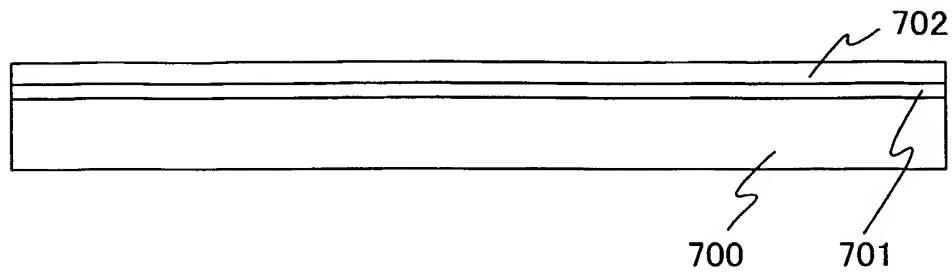


FIG. 7B

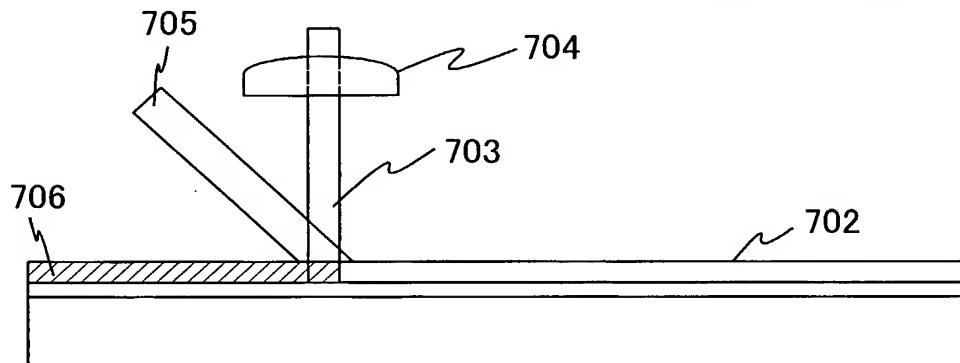


FIG. 7C

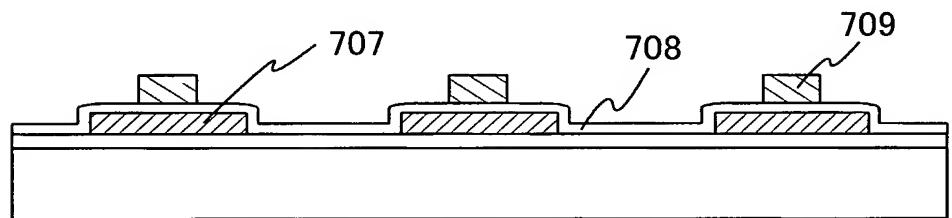
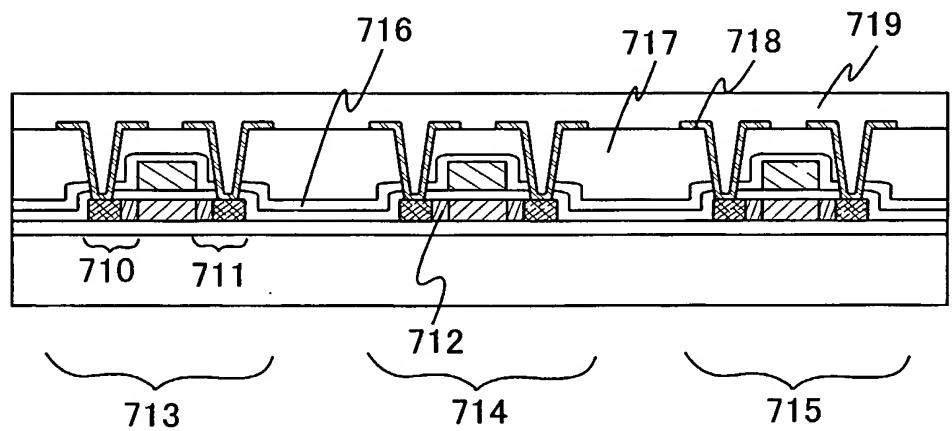


FIG. 7D



8/23

FIG. 8A

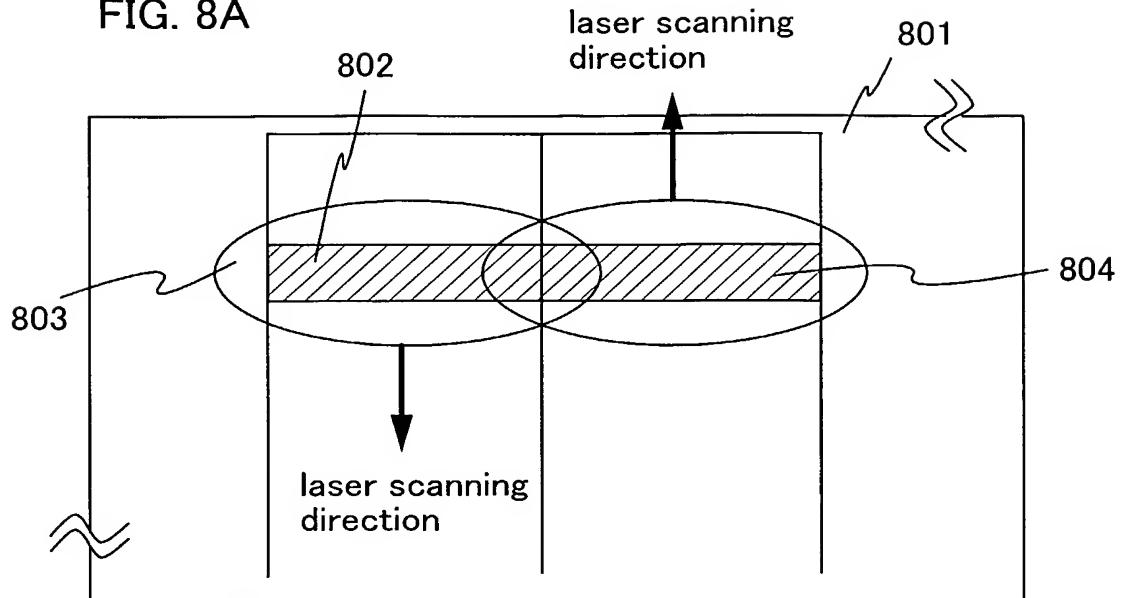
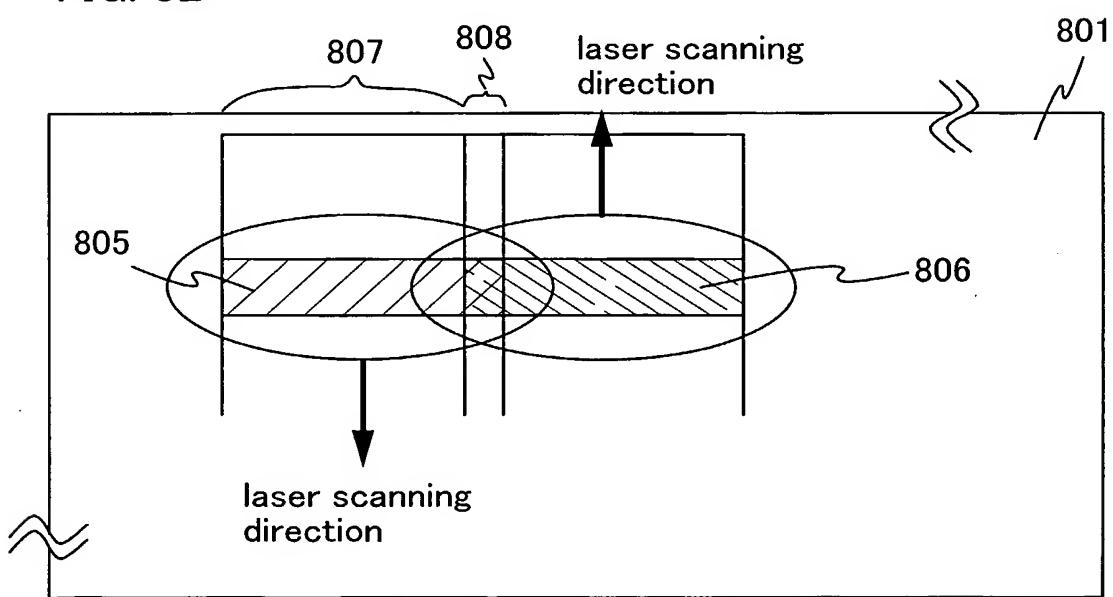


FIG. 8B



9/23

FIG. 9A

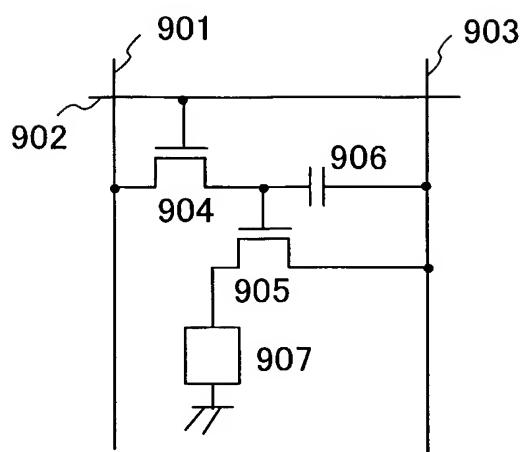


FIG. 9B

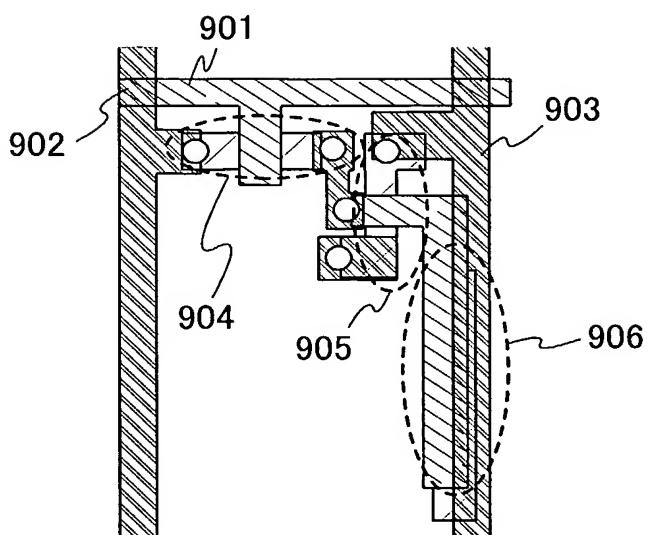
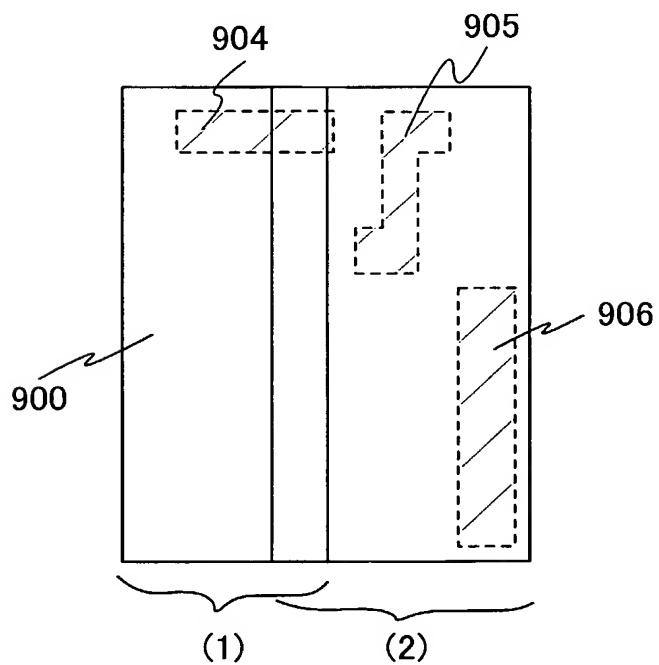


FIG. 9C



10/23

FIG. 10A

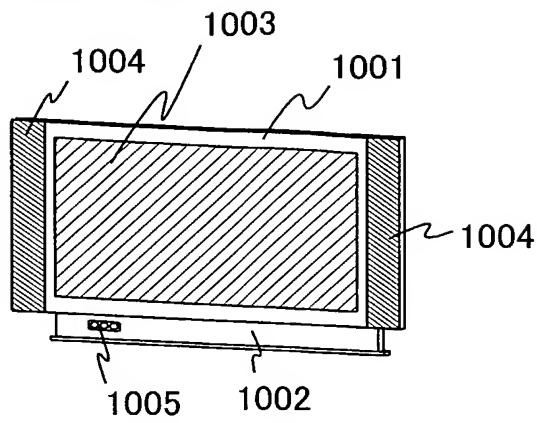


FIG. 10B

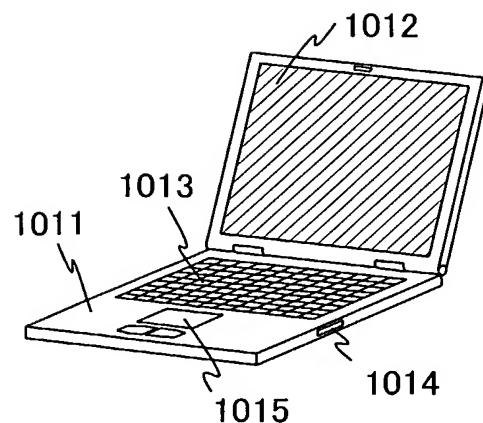


FIG. 10C

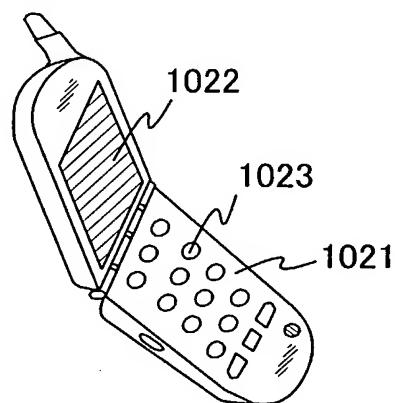


FIG. 10D

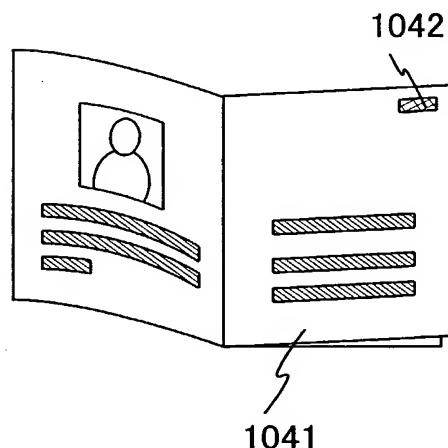
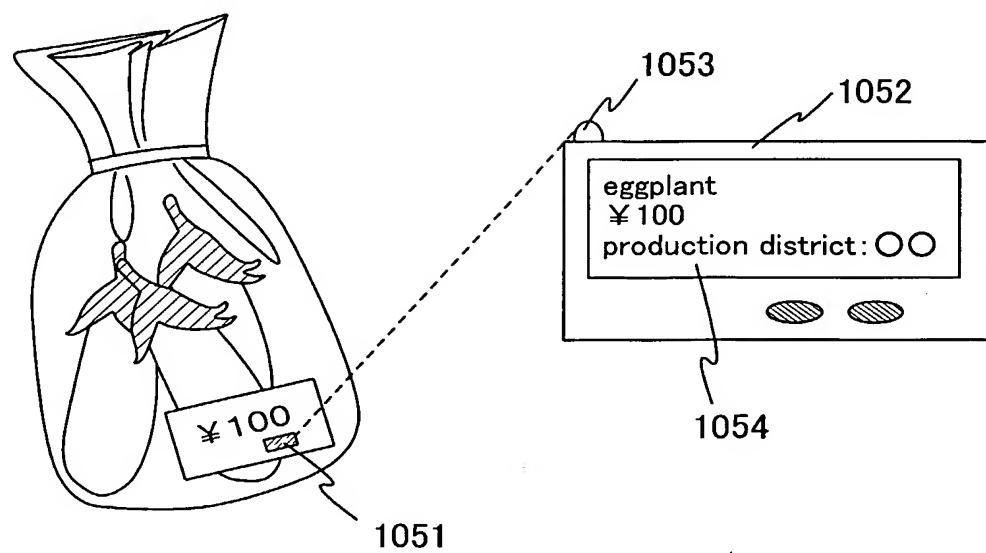
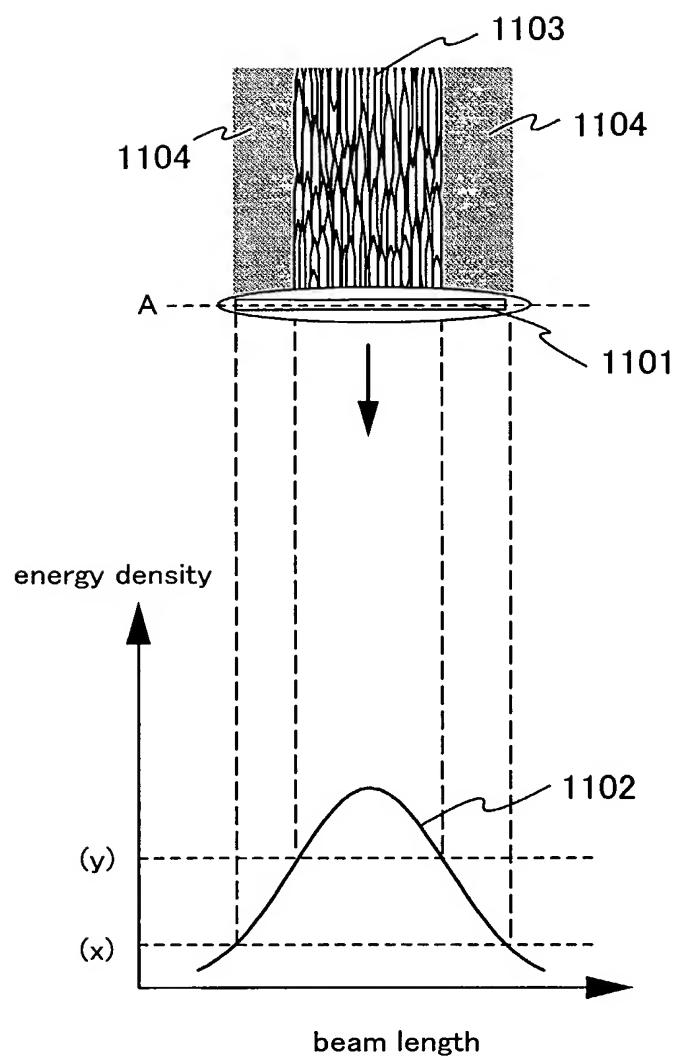


FIG. 10E



11/23



- (x) threshold at which crystalline region is formed
- (y) threshold at which crystalline region having large crystal grain is formed

FIG. 11

12/23

FIG. 12A

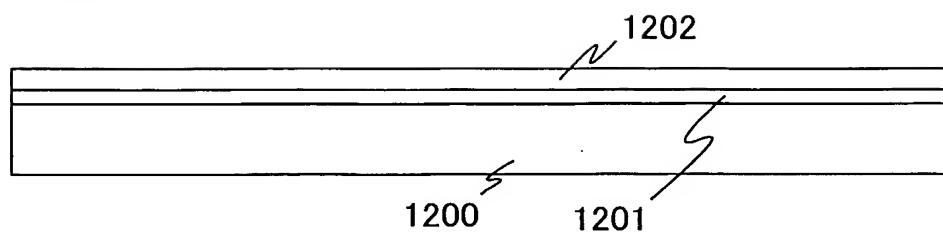


FIG. 12B

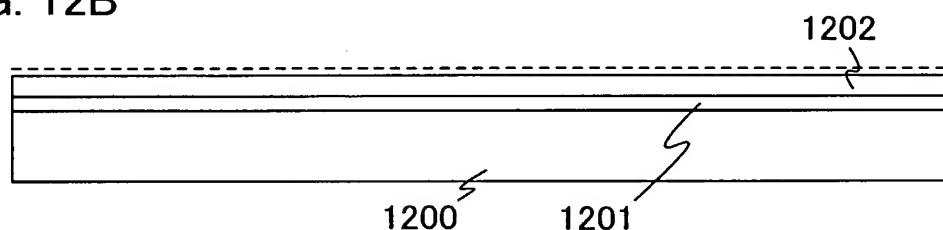


FIG. 12C

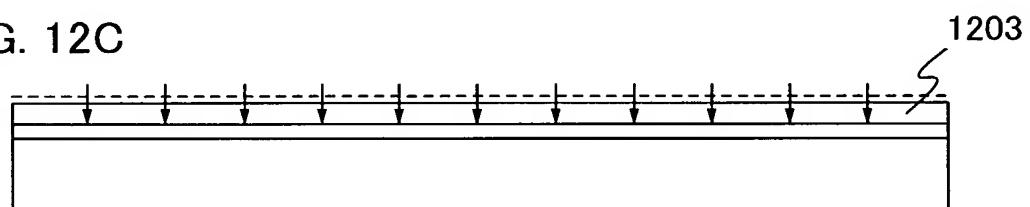
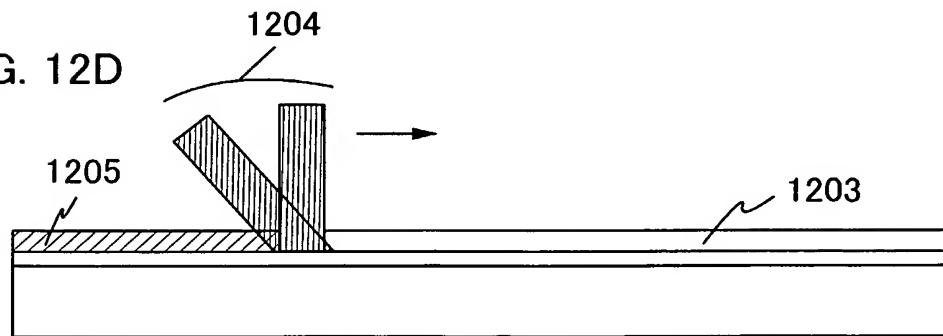


FIG. 12D



13/23

FIG. 13A

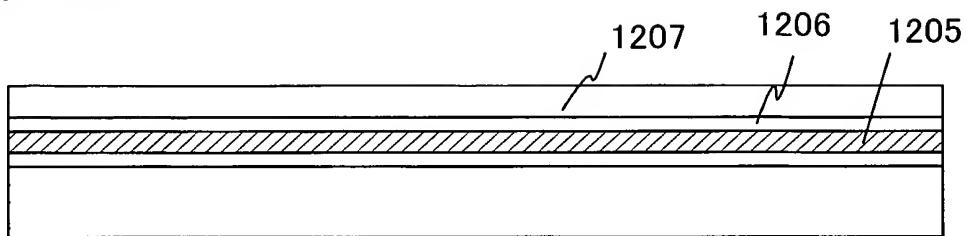


FIG. 13B

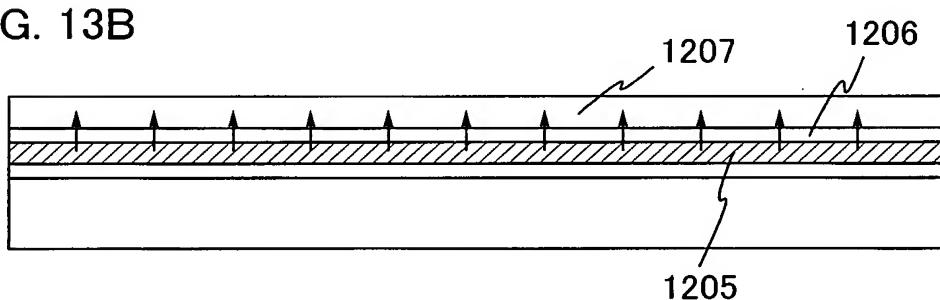
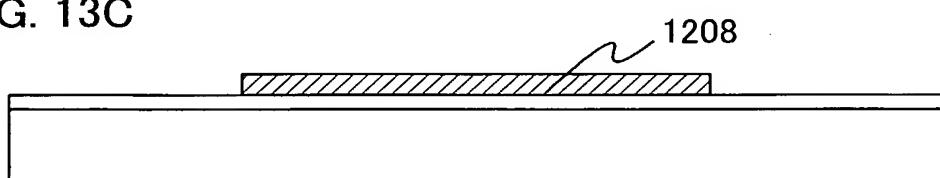


FIG. 13C



14/23

FIG. 14A

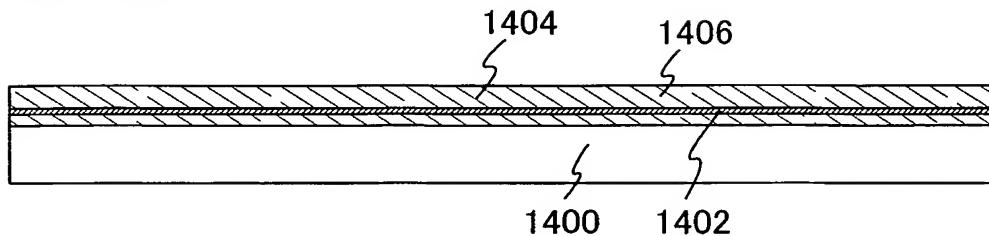


FIG. 14B

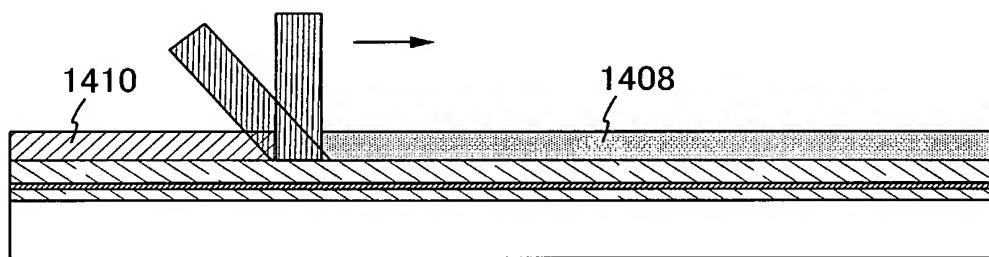


FIG. 14C

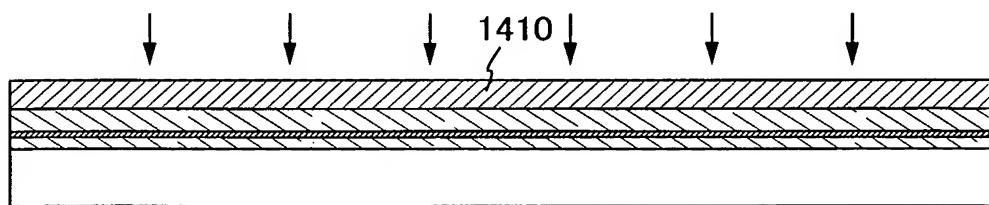
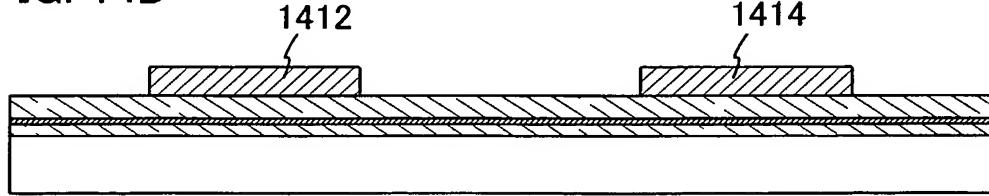


FIG. 14D



15/23

FIG. 15A

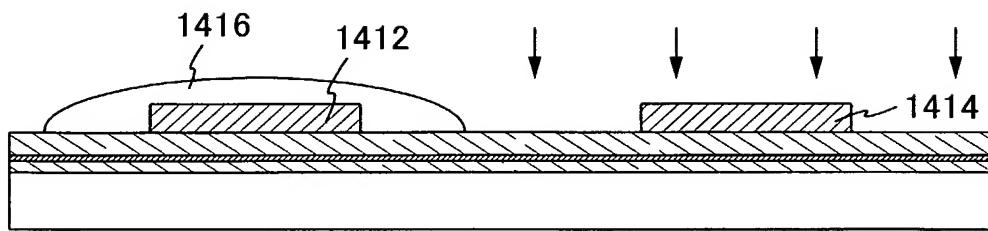


FIG. 15B

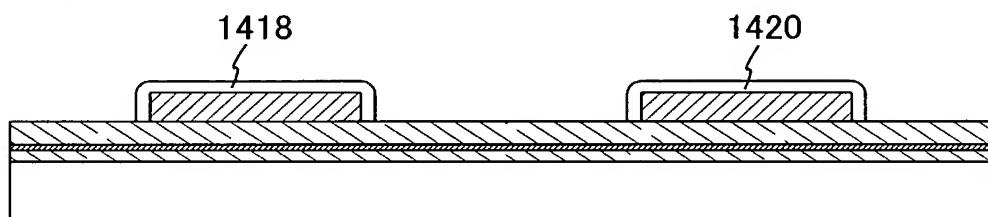


FIG. 15C

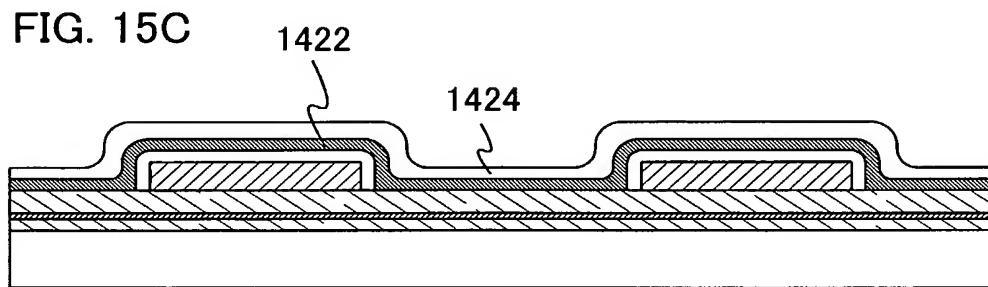
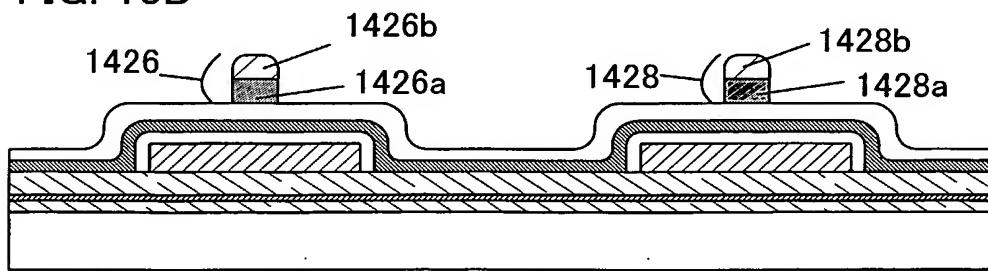


FIG. 15D



16/23

FIG. 16A

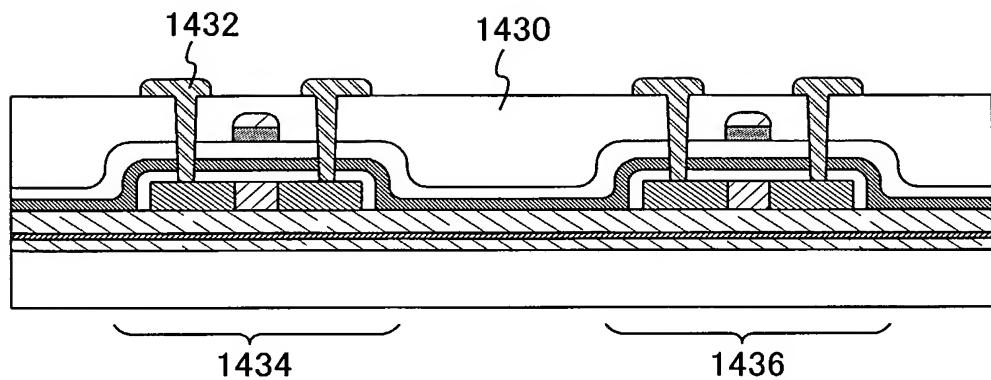


FIG. 16B

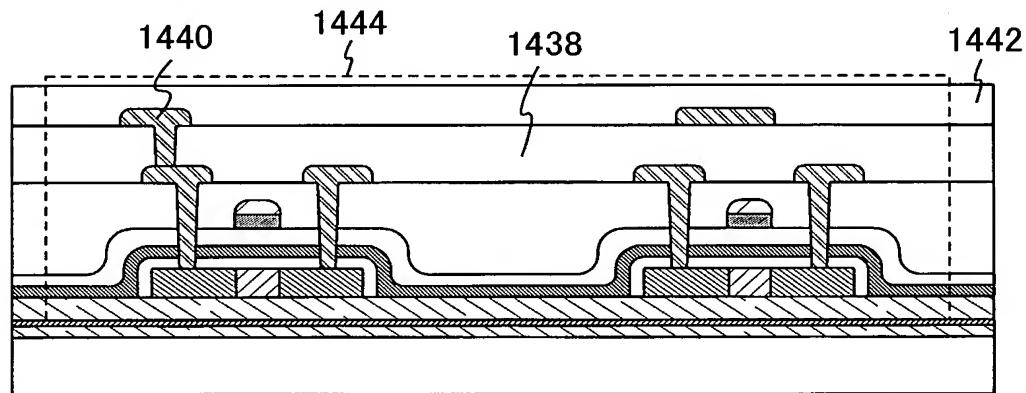


FIG. 17A

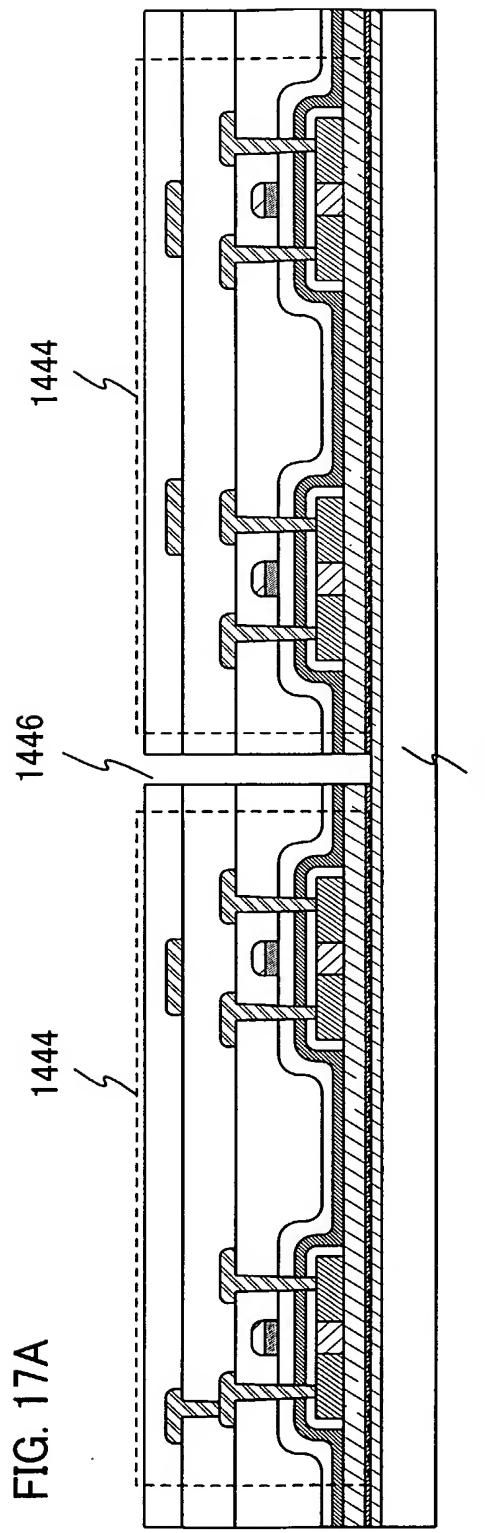
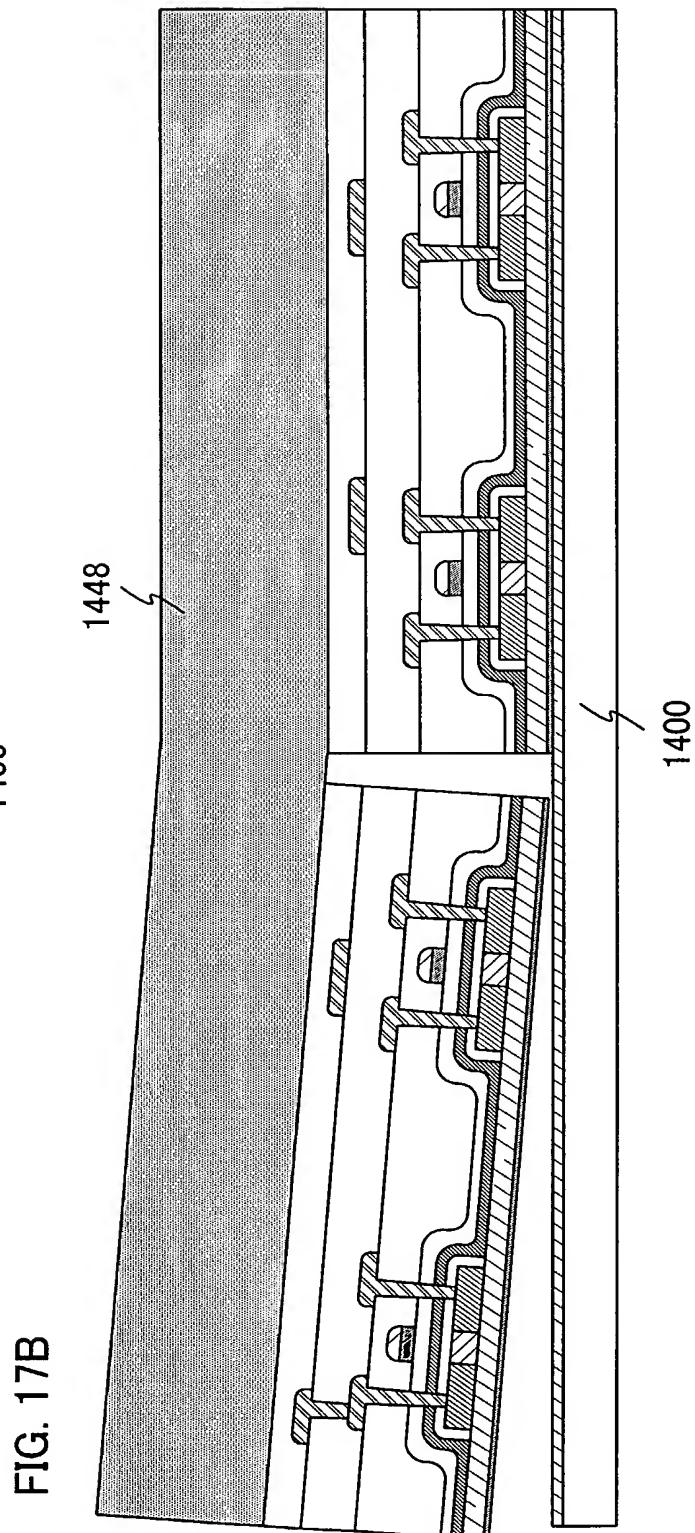


FIG. 17B



18/23

FIG. 18A

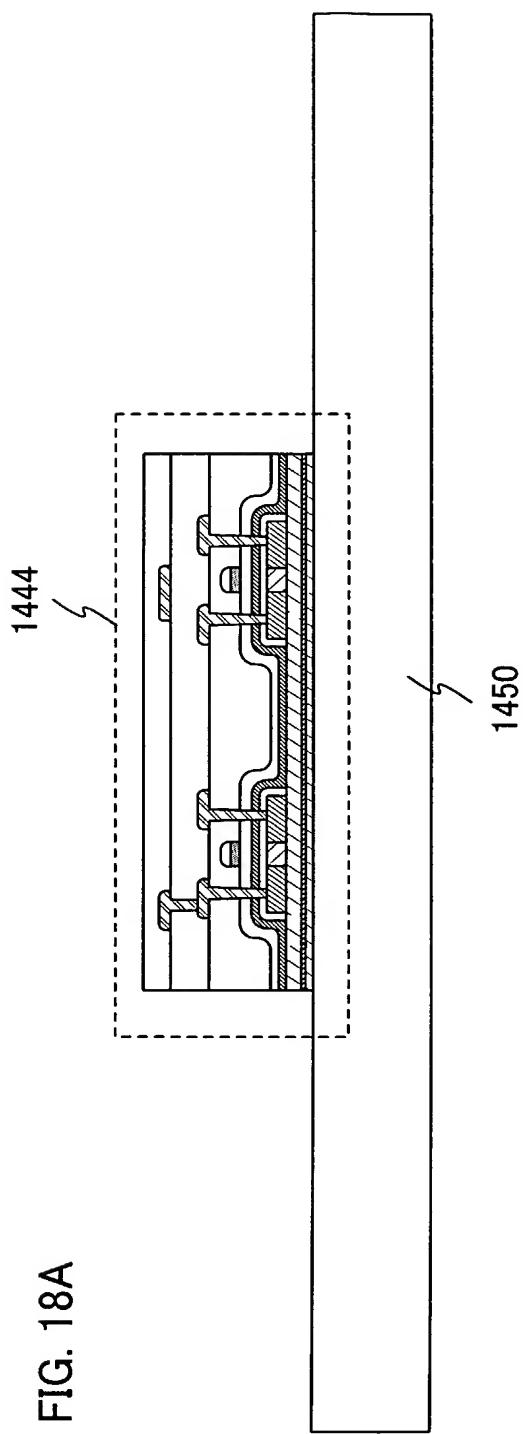
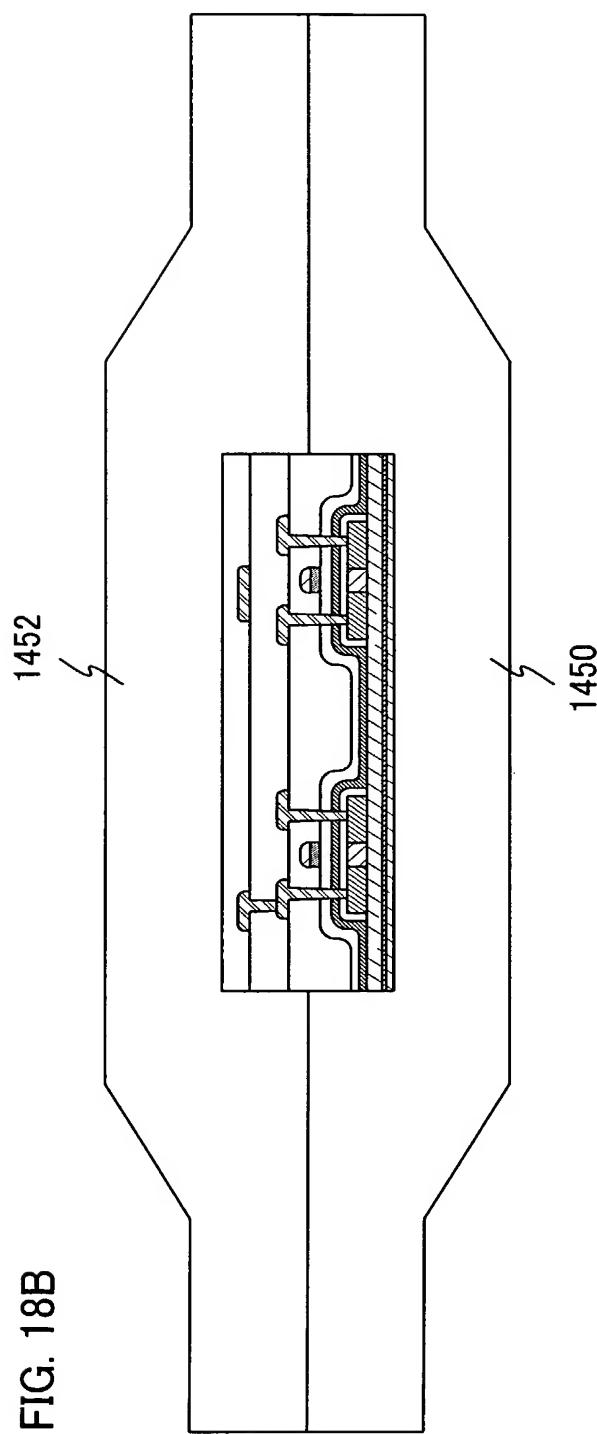


FIG. 18B



19/23

FIG. 19A

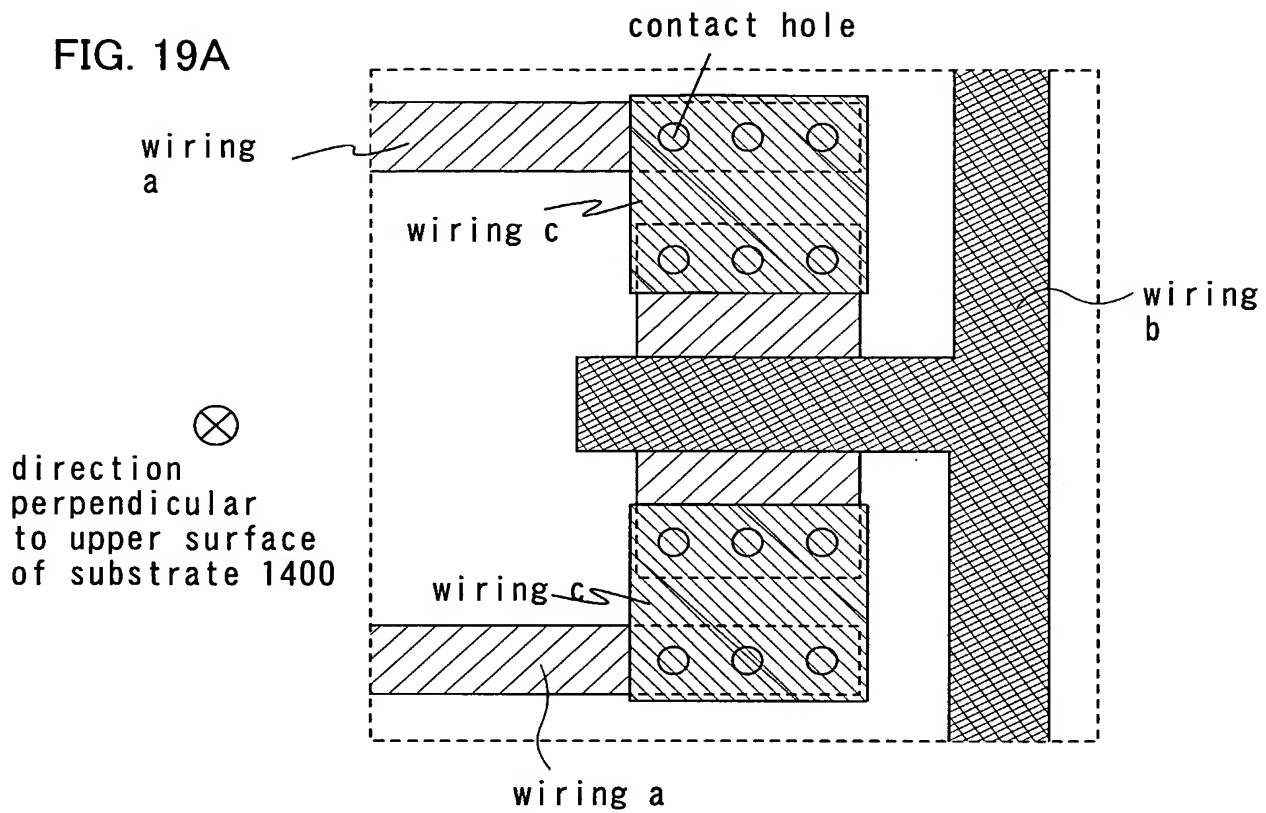
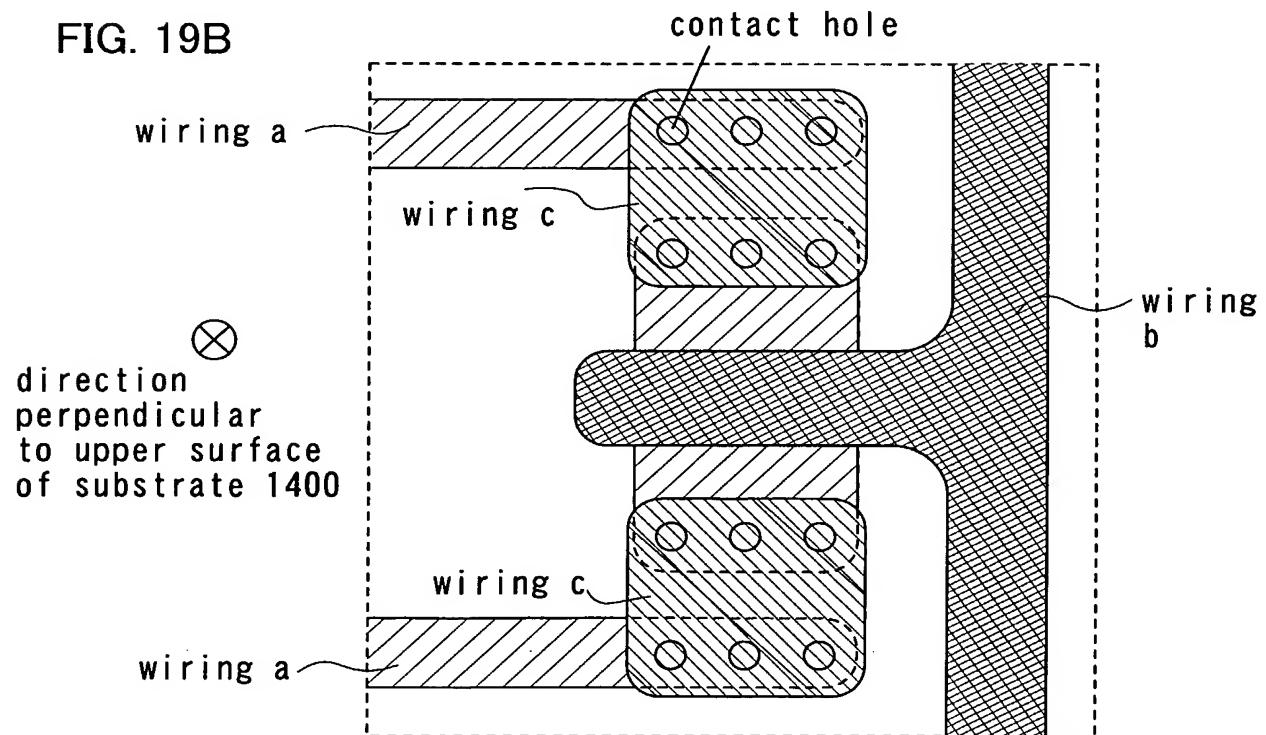


FIG. 19B



20/23

FIG. 20A

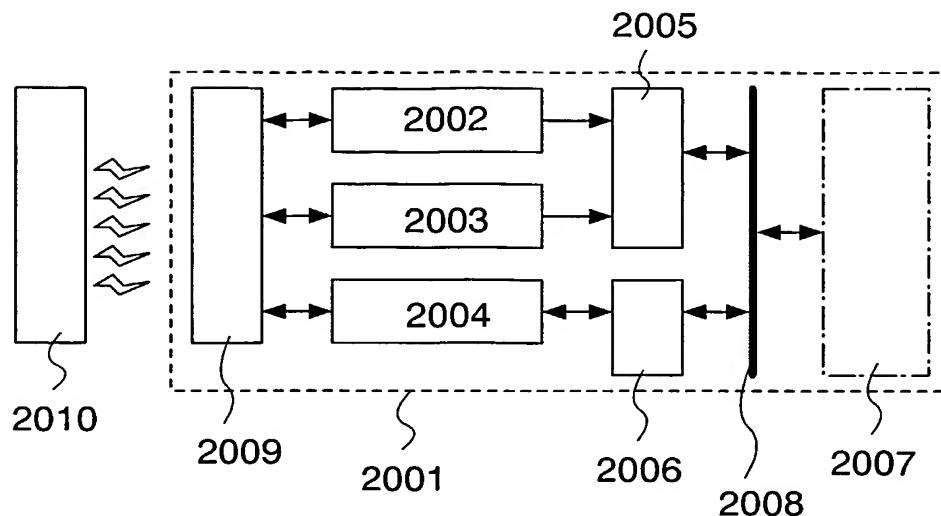


FIG. 20B

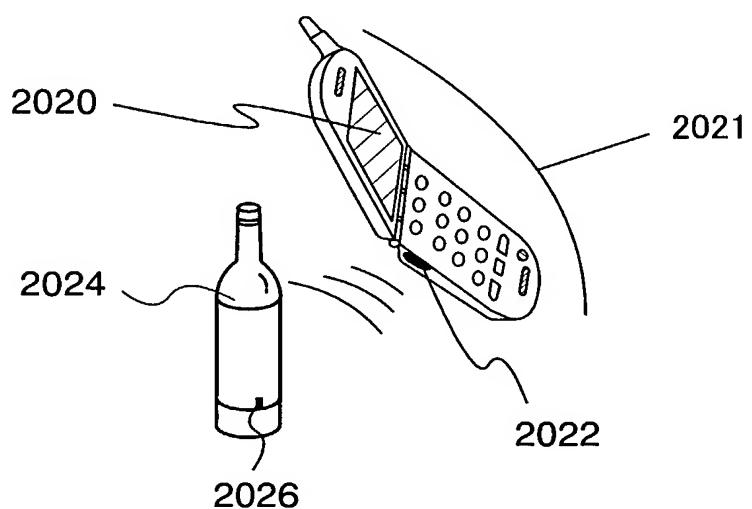
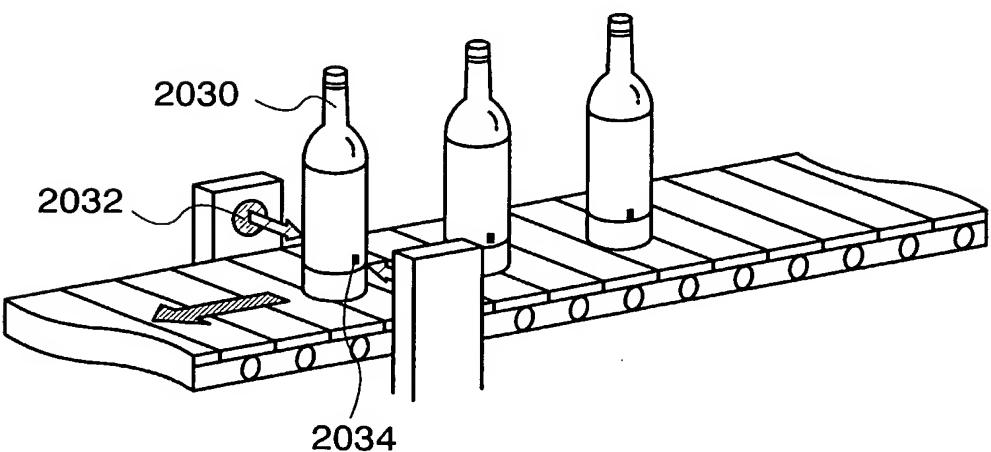


FIG. 20C



101: LASER OSCILLATOR, 102: LASER OSCILLATOR, 103: SLIT, 104: MIRROR,
105: LINEAR OR RECTANGULAR BEAM, 106: CYLINDRICAL LENS, 107:
CYLINDRICAL LENS, 108: LINEAR OR RECTANGULAR BEAM, 109: OPTICAL
FIBER, 110: BEAM SPOT, 111: SUBSTRATE, 112: SUCTION STAGE, 113:
5 X-STAGE, 114: Y-STAGE, 201: LASER OSCILLATOR, 202: LASER OSCILLATOR,
203: DIFFRACTIVE OPTICAL ELEMENT, 205: SLIT, 206: MIRROR, 207: BEAM,
208: CONDENSING LENS, 209: CONDENSING LENS, 210: BEAM, 211: OPTICAL
FIBER, 212: BEAM SPOT, 213: SUCTION STAGE, 214: SUBSTRATE, 215:
X-STAGE, 216: Y-STAGE, 401: SLIT OPENING PORTION, 402: BLOCKING FILM,
10 501: LASER, 502: LASER, 503: OPTICAL ISOLATOR, 504: OPTICAL ISOLATOR,
505: BEAM EXPANDER, 506: BEAM EXPANDER, 507: BEAM EXPANDER, 508:
BEAM EXPANDER, 509: MIRROR, 510: MIRROR, 511: MIRROR, 512: MIRROR,
513: DUMPER, 514: DUMPER, 515: SLIT, 516: LASER BEAM, 517: MIRROR, 518:
CYLINDRICAL LENS, 519: CYLINDRICAL LENS, 520: SUBSTRATE, 521: BEAM
15 SPOT, 522: LASER OSCILLATOR, 523: OPTICAL FIBER, 524: BEAM SPOT, 525:
SUCTION STAGE, 526: X-STAGE, 527: Y-STAGE, 700: SUBSTRATE, 701: BASE
FILM, 702: AMORPHOUS SEMICONDUCTOR FILM, 703: LASER, 704:
SPHERICAL LENS, 705: LASER, 706: CRYSTALLINE SEMICONDUCTOR FILM,
707: ISLAND-SHAPED SEMICONDUCTOR FILM, 708: GATE INSULATING FILM,
20 709: GATE ELECTRODE, 710: SOURCE REGION, 711: DRAIN REGION, 712:
LDD REGION, 713: N-CHANNEL TFT, 714: N-CHANNEL TFT, 715: P-CHANNEL
TFT, 716: INSULATING FILM, 717: INSULATING FILM, 718: WIRING, 719:
INSULATING FILM, 801: SEMICONDUCTOR FILM, 802: BEAM SPOT BY

22/23

HARMONIC, 803: BEAM SPOT BY FUNDAMENTAL WAVE, 804: BEAM SPOT BY HARMONIC, 805: BEAM SPOT BY HARMONIC, 806: BEAM SPOT BY HARMONIC, 807: LASER PITCH, 808: LASER-OVERLAPPING REGION, 901: SOURCE SIGNAL LINE, 902: GATE SIGNAL LINE, 903: CURRENT SUPPLYING LINE, 904: SWITCHING TFT, 905: DRIVER TFT, 906: CAPACITOR, 907: LIGHT-EMITTING ELEMENT, 1001: CASE, 1002: SUPPORTING STAND, 1003: DISPLAY PORTION, 1004: SPEAKER PORTIONS, 1005: VIDEO INPUT TERMINAL, 1011: CASE, 1012: DISPLAY PORTION, 1013: KEYBOARD, 1014: EXTERNAL CONNECTION PORT, 1015: POINTING MOUSE, 1041: PASSPORT, 1042: IC TAG, 1051: IC TAG, 1052: READER, 1053: ANTENNA PORTION, 1054: DISPLAY PORTION, 1101: BEAM SPOT, 1102: ENERGY DENSITY DISTRIBUTION, 1103: CENTER REGION OF BEAM SPOT, 1104: END REGION OF BEAM SPOT, 1200: SUBSTRATE, 1201: BASE FILM, 1202: SEMICONDUCTOR FILM, 1203: CRYSTALLIZED FILM, 1204: TWO LASER BEAMS, 1205: SEMICONDUCTOR FILM, 1206: OXIDE FILM, 1207: SEMICONDUCTOR FILM FOR GETTERING, 1208: ISLAND-SHAPED SEMICONDUCTOR FILM, 1400: FIRST SUBSTRATE, 1402: INSULATING FILM, 1404: PEELING LAYER, 1406: INSULATING FILM, 1408: SEMICONDUCTOR FILM, 1410: CRYSTALLINE SEMICONDUCTOR FILM, 1412: FIRST SEMICONDUCTOR FILM, 1414: SECOND SEMICONDUCTOR FILM, 1416: RESIST MASK, 1418: FIRST INSULATING FILM, 1420: FIRST INSULATING FILM, 1422: SECOND INSULATING FILM, 1424: THIRD INSULATING FILM, 1426: CONDUCTIVE FILM, 1426a: FIRST CONDUCTIVE FILM,

23/23

1428: CONDUCTIVE FILM, 1428a: SECOND CONDUCTIVE FILM, 1430: INSULATING FILM, 1432: CONDUCTIVE FILM, 1434: THIN FILM TRANSISTOR, 1436: THIN FILM TRANSISTOR, 1438: INSULATING FILM, 1440: CONDUCTIVE FILM, 1442: INSULATING FILM, 1444: ELEMENTS, 1446: OPENING PORTION, 5 1448: FIRST SHEET MATERIAL, 1450: SECOND SHEET MATERIAL, 1452: THIRD SHEET MATERIAL, 2001: RADIO FREQUENCY IC TAG, 2002: POWER SOURCE CIRCUIT, 2003: CLOCK GENERATOR CIRCUIT, 2004: CLOCK GENERATOR CIRCUIT, 2005: CONTROL CIRCUIT, 2006: INTERFACE CIRCUIT, 2007: MEMORY, 2008: DATA BUS, 2009: ANTENNA, 2010: READER/WRITER, 10 2020: DISPLAY PORTION, 2021: MOBILE TERMINAL, 2022: READER/WRITER, 2024: OBJECT, 2026: RADIO FREQUENCY IC TAG, 2030: OBJECT, 2032: READER/WRITER, 2034: RADIO FREQUENCY IC TAG